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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,396	07/08/2004	John K. McCormick		5145

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EXAMINER

CHONG CRUZ, NADJA N

ART UNIT	PAPER NUMBER
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3623

MAIL DATE	DELIVERY MODE
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08/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/710,396

Applicant(s)

MCCORMICK, JOHN K.

Examiner

NADJA CHONG CRUZ

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2009.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
4a) Of the above claim(s) 2,4-11,13,15-22,24,26-33,35 and 37-44 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,3,12,14,23,25,34 and 36 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 08 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 8 July 2004.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Status of Claims

1. This is a Non-Final office action in reply to the response filed on 8 April 2009.
2. Claims 1, 3, 12, 14, 23, 25, 34 and 36 are currently pending and have been examined.
3. Claims 2, 4-11, 13, 15-22, 24, 26-33, 35 and 37-44 have been withdrawn from consideration.

Election/Restrictions

4. Applicant's election with traverse of Specie I in the reply filed on 8 April 2009 is acknowledged. The traversal is on the ground(s) that the "Strategic Objectives" of Species I can exist as a stand alone, however, the "Tradeoffs" of Species II can not exist without the "Strategic Objectives" of Species I, and the "Ranges" of Species III can not exist without either the "Strategic Objectives" of Species I or the "Tradeoffs" of Species II. Thus, Species II are dependant and not mutually distinct from Species I, and Species III is dependant upon either Species I or II and not mutually distinct from either Species I or II. This is not found persuasive because Applicant erred in the species-to-claim identification. The correct species-to-claim identification is as follow:
 - Species I: includes claims 3, 14, 25 and 36
 - Species II: includes claims 2, 13, 24 and 35
 - Species III: includes claims 4, 5, 15, 16, 26, 27, 37 and 38
 - Species IV: includes claims 6, 7, 8, 9, 10, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, 39, 40, 41, 42 and 43
 - Species V: includes claims 11, 22, 33 and 44

Generic claims: include claims 1, 12, 23 and 34. Claims 12, 23 and 34 are similar in scope to claim 1. Regardless which specie is selected claims 1, 12, 23 and 34 are also included. Because the Applicant elected the concept of Species I, Examiner examined those claims related to this concept. The requirement is still deemed proper and is therefore made FINAL.

Specification

5. The specification is objected to because the content and arrangement of the disclosure do not conform to the rules outlined in the several sections of 37 CFR and the MPEP reproduced briefly below. Applicant is reminded of the proper content and organization of the specification specifically with regard to the following sections.
6. Content of Specification
 - (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
 - (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
 - (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
 - (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
 - (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
 - (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
 - (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the

invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

Appropriate correction is required.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application

claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

8. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.
9. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).
10. Claims 1, 12, 23 and 34 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 7, 13 and 19 of copending application No. 10/710,384. The conflicting claims are not identical, because copending claim 1 requires the additional steps of "running the material requirements planning...", "taking said expected results and subtracting said second expected results...", "determining the new/order and/or lot size..." not required by claim 1 in the instant application. However the conflicting claims are not patentably distinct from each other because:

Claim 1 (instant) and claim 1 (copending) recite common subject matter;

Claim 12 (instant) and claim 7 (copending) recite common subject matter.

Claim 23 (instant) and claim 13 (copending) recite common subject matter.

Claim 34 (instant) and claim 19 (copending) recite common subject matter.

Whereby the elements of claims 1, 12, 23 and 34 (instant) are fully anticipated by copending claims 1, 7, 13 and 19, and anticipation is "the ultimate or epitome of obviousness" (*In re Kalm*, 154 USPQ 10 (CCPA 1967), also *In re Dailey*, 178 USPQ 293 (CCPA 1973) and *In re Pearson*, 181 USPQ 641 (CCPA 1974)).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending application No. 10/710,385. The conflicting claims are not identical, because copending claim 1 requires the additional steps of "listing a plurality of measures to be used for scheduling...", "selecting a primary measure for said scheduling...", "listing a plurality of constraints..." not required by claim 1 in the instant application. However the conflicting claims are not patentably distinct from each other because:

Claim 1 (instant) and claim 1 (copending) recite common subject matter;

Whereby the elements of claims 1 and 13 (instant) are fully anticipated by copending claims 1, 6, 13 and 18, and anticipation is "the ultimate or epitome of obviousness" (*In re Kalm*, 154 USPQ 10 (CCPA 1967), also *In re Dailey*, 178 USPQ 293 (CCPA 1973) and *In re Pearson*, 181 USPQ 641 (CCPA 1974)).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 1, 3, 12, 14, 23, 25, 34 and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

14. Claims 12 and 34 recite the limitation "MIS". There is insufficient antecedent basis for this limitation in the claim. Furthermore, the use of the acronym "MIS" in said claims, without recitation of the expanded terms for establishing a concise meaning for subsequent use, renders the claim indefinite. One of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The claim limitations referencing MIS were examined as best understood by the Examiner.
15. The term "temporarily" in claim 1, 12 and 34 is a relative term which renders the claim indefinite. The term "temporarily" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.
16. As per claim 1 recite *the primary strategic objective, the possible measures, the primary strategic objective measure, the formula, the original databases, the work or activity, the modified databases, the first expected results, said original unmodified databases, the said interactive databases, the second expected results and the result*. As per claim 12 recite *the original databases, the calculation, the said activities, the said modified original databases, the first expected strategic objective, the second expected results and the result*. As per claim 23 recites *the expected results, the existing planned activities, the data and said planning period*. As per claim 34 recites *the code, the memory, the said computer, the first expected results, the second expected result and the results*. There is insufficient antecedent basis for these limitations in the claim.
17. As per claim 1 recites *determining the formula*. Examiner is not clear how the formula is determined and which formula needs to be determined? Appropriate correction is required.
18. As per claim 3 recites *an allowable range*. Examiner is not clear how the allowable range is set? How it is determined to be allowable? Appropriate correction is required.
19. As per claim 1 recites the limitations *compare the said first expected results with said second expected results to determine if the said modifications to the said interactive database caused an improvement, a deterioration or was impact neutral*. Those limitations are vague and indefinite,

the limitations fails to further limit the claims, and furthermore one ordinary skill in the art would not be able to ascertain the metes and bounds of the limitation. How is this comparison quantified? How is the result determined to be an improvement, deterioration or an impact neutral? Claim 3 inherit the same deficiencies as claim 1 and are therefore rejected for the same reasons as claim 1. The limitations of claims 12, 14, 34 and 36 encompass substantially the same scope as claim 1. Accordingly, those similar limitations are rejected in substantially the same manner as claim 1, as described above. How is the result determined to fall or not to fall within the allowable strategic objective range when setting the allowable range is not clear? Appropriate correction is required.

20. As per claim 1 recites the limitations *desired target value*, *the possible measures*. As per claims 12, 23 and 34 recites the limitations *desired target value*. Those limitations are vague and indefinite, the limitations fails to further limit the claims, and furthermore one ordinary skill in the art would not be able to ascertain the metes and bounds of the limitation. Appropriate correction is required.
21. As per claim 34, recites *a device and system*. Claim 13 is indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention because the claimed invention is directed to neither a "machine" nor a "system".
22. As per claims 34 and 36. Claim elements "means for receiving, means for receiving, means for temporarily, means for accessing, means for loading and storing, means for accessing, means for comparing, means for accessing, means for preventing, means for accessing, means for periodically, " are a means (or step) plus function limitation that invokes 35 U.S.C. 112, sixth paragraph. However, the written description fails to disclose the corresponding structure, material, or acts for the claimed function. The disclosure provides *new software modules* (paragraph 0001); *a variety of software modules or programs* (paragraph 0038). Simply reciting "software" is insufficient disclosure of the corresponding structure, material, or acts for performing the claimed function because the disclosure does not provide what structures corresponds to each means limitation in the claims. Therefore, one person of ordinary skill in the art would not know and understand the claimed invention.

Applicant is required to:

(a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or

(b) Amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function, applicant is required to clarify the record by either:

(a) Amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or

(b) Stating on the record what the corresponding structure, material, or acts, which are implicitly or inherently set forth in the written description of the specification, perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

Claim Rejections - 35 USC § 101

23. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

24. Claims 1 and 3 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Based on Supreme Court precedent and recent Federal Circuit decisions, *88 USPQ2d 1385 In re Bilski U.S. Court of Appeals Federal Circuit*. A method claim must meet a specialized, limited meaning to qualify as a patent-eligible process claim. As clarified in *Bilski*, The test for a method claim is whether the claimed method is (1) tied to a particular machine or apparatus, or (2) transforms a particular article to a different state or thing. This is

Art Unit: 3623

called the "machine or-transformation test" (see at least *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

25. There are two corollaries to the machine-or-transformation test. First, a mere field-of-use limitation is generally insufficient to render an otherwise ineligible method claim patent eligible. This means the machine or transformation must impose meaningful limits on the method claim's scope to pass the test. Second, insignificant extra-solution activity will not transform an unpatentable principle into a patentable process. This means reciting a specific machine or a particular transformation of a specific article in an insignificant step, such a data gathering or outputting, is not sufficient to pass the test.
26. Nominal recitations of structure in an otherwise ineligible method fail to make the method a statutory process. See *Benson*, 409 U.S. at 71-72. As *Comiskey* recognized, "the mere use of the machine to collect data necessary for application of the mental process may not make the claim patentable subject matter." *Comiskey*, 499 F.3d at 1380 (citing *In re Grams*, 888 F.2d 835, 839-40 (Fed. Cir.1989)).
27. Incidental physical limitations, such as data gathering, field of use limitations, and post-solution activity are not enough to convert an abstract idea into a statutory process. In other words, nominal or token recitations of structure in a method claim do not convert an otherwise ineligible claim into an eligible one. Claim 3 inherit the same deficiencies as claim 1 and are therefore rejected for the same reasons as claim 1.
28. It is also noted that the mere recitation of a machine in the preamble in a manner such that the machine fails to patentably limit the scope of the claim does not make the claim statutory under 35 U.S.C. § 101, as seen in the Board of Patent Appeals Informative Opinion *Ex parte Langemyr et al.* (Appeal 2008-1495).
29. Claims 23 and 25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows.
30. The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

31. As per claims 23 and 25 recites *a computer program embodied on a computer-readable medium*. Therefore, these claims are drawn to functional descriptive material (i.e., a computer program or software) recorded on a computer readable medium, as opposed to a computer readable medium storing/embodying the functional descriptive material. The former defines a computer program or software per se, recited as residing on a computer readable medium. However, because the claim begins by defining purely software, and the storage thereof may be interpreted as an intended use or purpose statement, it appears that the claim is defining the software per se. A "program" per se is non-statutory, as being an abstract idea. The element of "stored on a computer readable memory" may be where it is stored, but it is the program itself that is being claimed (and again, programs or software per se. are non-statutory).
32. The latter recites a statutory product (i.e., a computer readable medium), defined by virtue of the functional descriptive material embodied thereon. Claims conforming to 35 USC 101 for computer implemented software should be directed to computer readable media embodying a program, NOT a program stored on a computer readable medium ("a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035; - *Interim Guidelines, Annex IV*).

Examiner suggests drafting the preambles to read "computer-readable medium encoded with a computer program".

33. In addition, claim 23 recites functional descriptive material on a computer readable medium. However, the program/algorithm itself merely manipulates data (e.g., a storage record), or merely solves a mathematical problem without a limitation to a practical application. A practical application exists if the result of the claimed invention is "useful, concrete and tangible" (with the emphasis on "result")(Guidelines, section IV.C.2.b). A "useful" result is one that satisfies the utility requirement of section 101, a "concrete" result is one that is "repeatable" or "predictable", and a "tangible" result is one that is "real", or "real-world", as opposed to "abstract" (Guidelines, section IV.C.2.b)). Claim 23 merely manipulates data without ever producing a useful, concrete and tangible result. Claim 23 disclose a *data structure* where values (e.g., the calculations, prioritized constraints, the calculated work schedule measures, work schedule) are store in it.

Claim Rejections - 35 USC § 103

34. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
35. Claims 1, 3, 12, 14, 23, 25, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouimet (US 2002/0107819 A1) in view of Boonkhun, Analysis of Operations Research Models Using Activity-Based Costing, The Pennsylvania State University, December 2002, further in both view of Pothos et al., (US 2003/0041087 A1) hereinafter "Pothos" and Huang et al., (US 5,953,707) hereinafter "Huang".

Claim 1:

Ouimet as shown discloses method for determining if proposed modifications to existing planned activities are supportive of and consistent with an entity's strategic objective, the method comprising:

- *c. selecting the primary strategic objective* (Figure 6, "Select Primary Goal", ¶ 0026, which teaches "select and define a primary objective or goal");
- *d. selecting and saving a desired target value for the said primary strategic objective* (¶ 0033 which teaches that "[t]he user is thus provided with a way to specify a target value for the strategic objective to attain" and ¶ 0069 which teaches that "[w]hen presented with a target value for a Strategic Objective, the system operates to find the proper weight for the Objective that will yield the target value after optimization" wherein the target value was previously selected and saved);
- *e. identifying the possible measures for the said primary strategic objective* (¶ 0054-0068, which teaches a list of possible measures for said primary strategic objective (e.g., profit));
- *f. selecting the primary strategic objective measure* (¶ 0069, which teaches that "the task of selecting the primary objective from the Aggregate Measure Table may also includes the further task of selecting whether the objective is to maximized or minimized. Strategic Objectives are also included in the Aggregate Measure Table and are selected by the user");
- *g. determining the formula for calculating the said primary strategic objective measure if the said primary strategic objective measure does not already exist and saving the said formula for calculating the said primary strategic objective measure* (¶ 0014-0024 which teaches that "[t]here are a number of strategic objectives used in business planning. In retail industries many of these objectives are related to price. Price index is a commonly used measure" (e.g., primary strategic objective measure) "that can have strategic import. A price index" (e.g., a formula) is simply a direct mathematical comparison between a retailer's prices and that of a competitor", further, Ouimet teaches that it is old and well know to determine a formula for calculating a primary strategic objective measure as discloses in

paragraphs 0019-0024 for each strategic objective e.g., Service Time, Risk, Product Availability, Product Selection, Market Share, Revenue);

Quimet fail to explicitly teach the following limitations. However, Boonkhun in an analogous art of scheduling/planning for the purpose of defining and prioritizing strategic objectives (page 63) as shown does:

- *a. defining the strategic objectives* (page 63, 3.2.2. Methodology, which teaches "[d]efine the strategic objectives/goals of the company");
- *b. prioritizing the said strategic objectives* (page 63, 3.2.2. Methodology, which teaches "rate the importance of each strategic objective/goal relative to others");

Therefore, it would have been obvious to one of ordinary skill in the art to modify Quimet to include the teaching of Boonkhun because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Quimet teaches in ¶¶ 0093-0096, 0129-0145 and figure 12, the scenario analysis routine. Quimet and Boonkhun fail to explicitly teach the following limitations. However, Pothos in an analogous art of scheduling/planning for the purpose of assuming that a work or activity has been completed (¶ 0137) as shown does:

- *h. temporarily modify the original databases to assume that the work or activity yet to be completed has been completed over a planning period and saving the modified databases* (¶ 0137 which teaches that "[t]he schedule can be used to produce a Gantt chart on display 16 at step S26.9 in the manner previously described for the original schedule. The Gantt chart display can provide a display of both the original schedule and the schedule produced by the what-if session and so by displaying them side-by-side, a comparison of the changes can be easily made." Pothos teaches that the work or activity is assumed to be completed over a

planning period in order to compare changes between schedules. See also Figure 26);

Therefore, it would have been obvious to one of ordinary skill in the art to modify Ouimet in view of Boonkhun to include the teaching of Pothos because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Further, Ouimet teaches:

- *i. calculate the first expected results using the said modified databases as measured by the said primary strategic objective measure over the said planning period and saving the said first expected results* (¶ 0027 which teaches that "the invention calculates a large number of scenarios (e.g., calculate the first expected result) and presents the results in a graphic form" (e.g., the first expected results are saved in order to be displayed in a graphic form) "so that the optimum decision envelope can be visualized for the selected primary objective(s) in light of the selected strategic objective(s).");
- *j. create an interactive version of the said original unmodified databases wherein users are allowed to modify the said interactive databases* (¶ 0093-0096 and 0129-0145 which teaches the scenario analysis routine and Figure 12 which illustrates an interactive version wherein a user is allowed to modify it);
- *k. use the said modified interactive databases to calculate the second expected results caused by the said interactive database modifications as measured by the said primary strategic objective measure for the said planning period and temporarily save the said second expected results* (¶ 0027 which teaches that "the invention calculates a large number of scenarios (e.g., calculate the second expected result) and presents the results in a graphic form" (e.g., the second

expected results are saved in order to be displayed in a graphic form) "so that the optimum decision envelope can be visualized for the selected primary objective(s) in light of the selected strategic objective(s).");

- *l. compare the said first expected results with said second expected results to determine if the said modifications to the said interactive database caused an improvement, a deterioration or was impact neutral to the said strategic objective target value and temporarily save the said comparison result (§ 0071 which teaches that "the best result" (e.g., an improvement or an impact neutral) "is obtained by allowing the user to select several optimization methods and to compare the results obtained by using a variety of methods on the same data set");*

Ouimet teaches "[t]he effective objective function can be optimized through a range of values of the weighting factor, with the results stored in a table" (Ouimet, ¶ 0033) "a hard disk drive for storing results and enterprise data" (Ouimet, ¶ 0073) Pothos teaches "the session details can be individually stored at step S26.7" (Pothos, ¶ 0136). Ouimet, Boonkhun and Pothos fail to explicitly teach the following limitations. However, Huang in an analogous art of decision support system for the purpose of saving or not saving the modifications (col. 104, lines 32-36) as shown does:

- *m. save the said modifications to the said interactive databases into the said original databases if the said second expected results or the result of the said comparison between the said first expected results and the said second expected results was an improvement to achieving the said strategic objective target value;* (col. 104, lines 32-36 which teaches "[e]ach time the scenario is saved, the Date Uploaded field of the scenario is automatically changed to the current date and time. The scenario is saved when the user clicks the OK button. If the user clicks the Cancel button, the scenario is not saved");

- *n. do not save the said modifications to the said interactive databases into the said original databases if the said second expected results or the result of the said comparison between the said first expected results and the said second expected results was a detriment to achieving the said strategic objective target value (col. 104, lines 32-36 which teaches "[e]ach time the scenario is saved, the Date Uploaded field of the scenario is automatically changed to the current date and time. The scenario is saved when the user clicks the OK button. If the user clicks the Cancel button, the scenario is not saved");*
- *o. save or not save, the choice of saving or not saving to be determined by the said entity, the said modifications to the said interactive databases into the said original databases if the said second expected results or the results of the said comparison between the said first expected results and the said second expected results was impact neutral to achieving the said strategic objective target value; and (col. 104, lines 32-36 which teaches "[e]ach time the scenario is saved, the Date Uploaded field of the scenario is automatically changed to the current date and time. The scenario is saved when the user clicks the OK button. If the user clicks the Cancel button, the scenario is not saved");*

Huang teaches the option to save modifications by allowing a user to click the OK button and to not save by clicking the Cancel button. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ouimet in view of Boonkhun and Pothos to save the modification when the comparison result is an improvement, to not save the modifications when the comparison result is a detriment and to decide to save or not save when the comparison result is a neutral impact to achieve the strategic objective target because the claimed invention is merely a combination of old elements (e.g., what-if analysis, the option to save or not to save), and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that

the results of the combination were predictable (e.g., allowing a user to save or not save the result based on the strategic objective value which depend on the manager's judgment and business' need).

In addition, Ouimet teaches:

- *p. periodically save the said modifications to the said interactive database into the said modified database and into the said interactive database if the said modifications were stored in the said original databases and repeating steps h, i, j, k, l, m, n and o above (Figure 12 illustrates the scenario analysis routine that periodically save the modifications);*

Claim 12:

The limitations of claim 12 encompass substantially the same scope as claim 1. Accordingly, those similar limitations are rejected in substantially the same manner as claim 1, as described above. The following are the limitations of claim 12 that differ from claim 1.

Ouimet as shown discloses an apparatus for determining if proposed modifications to existing planned activities are supportive of and consistent with an entity's strategic objective, the apparatus comprising:

- *a. user interface devices and modules operatively coupled to said apparatus (¶ 0031: "used through a graphic users interface" "a user is presented with a menu on a display device");*
- *b. a memory that stores databases and computer-readable code (¶ 0073: "a memory 104 for storing program instructions, tables and results");*
- *c. said databases including the original databases, modified original databases, interactive version of the said original databases and modified interactive databases (Figure 3 illustrates Data lists and different tables, ¶ 0033: "[t]his computed table essentially provides a relationship between different optimized values..." wherein a database is commonly defined as an integrated collection of logically related*

records or files which consolidates records into a common pool of data records that provides data for many applications. A database is a collection of information that is organized so that it can easily be accessed, managed, and updated. Therefore, Ouimet teaches databases);

- *d. a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said code configured to* (§¶ 0073: "a processor 105 for performing various kinds of processing and controlling the overall operation");
- *i. receive, load and store* (§¶ 0073: "a user enters commands, input functions, etc." "storing results and enterprise data");
- *said apparatus having containing or access to the said entity's said databases and MIS* (§¶ 0073: "storing results and enterprise data", enterprise data represents the information contained in a management information system);
- *iv. execute the said MIS, or a duplicate version of the said MIS, over the said planning period using the said modified original databases* (§¶ 0073: "storing results and enterprise data", enterprise data represents the information contained in a management information system);
- *and store and/or output of the said comparison to the said memory, said storage medium and/or output devices of the said apparatus* (§¶ 0073: "a memory 104 for storing program instructions, tables and results");

Claim 23:

The limitations of claim 23 encompass substantially the same scope as claim 1. Accordingly, those similar limitations are rejected in substantially the same manner as claim 1, as described above. The following are the limitations of claim 23 that differ from claim 1.

Ouimet as shown discloses a computer program embodied on a computer-readable medium for comparing a forecast of the expected results caused by the existing planned activities and a forecast of the expected results of any planned changes to the said existing planned activities in terms of a strategic objective measure in order to determine if the said planned changes are supportive of and consistent with an entity's strategic objective, the computer program comprising:

- *c. an original database, a modified original database containing data assumed completed over the upcoming planning period, an interactive database version of the original database and a modified interactive database that contains the said planned changes to the original database and the data in the said modified interactive database is assumed completed over the said planning period (Figure 3 illustrates Data lists and different tables, ¶ 0033: "[t]his computed table essentially provides a relationship between different optimized values..." wherein a database is commonly defined as an integrated collection of logically related records or files which consolidates records into a common pool of data records that provides data for many applications. A database is a collection of information that is organized so that it can easily be accessed, managed, and updated. Therefore, Ouimet teaches databases);*
- *g. a feature (¶ 0076: "the scenario analysis") for modifying the said original database of the said existing planned activities with the said planned changes to the said existing planned activities in the said memory if the said differences between the said first expected results and the said second expected results is an improvement to the said strategic objective measure and/or said target value or if the said second expected result is an improvement to the said strategic objective measure and/or said target value (intended use));*

Claim 34:

The limitations of claim 23 encompass substantially the same scope as claims 1 and 12. Accordingly, those similar limitations are rejected in substantially the same manner as claims 1 and 12, as described above. The following are the limitations of claim 23 that differ from claims 1 and 12.

Ouimet as shown discloses a device and system for determining if proposed modifications to existing planned activities are supportive of and consistent with an entity's strategic objective, the device and system comprising:

- *a. a means for receiving, loading and storing the code* (§ 0073: "a user enters commands, input functions, etc." "storing results and enterprise data" "a memory 104 for storing program instructions, tables and results");
- *f. a means for accessing the said MIS, or a copy of the said MIS* (§ 0073: "storing results and enterprise data", enterprise data represents the information contained in a management information system);

Claim 3:

Ouimet teaches the following limitation:

- *a. setting an allowable range for the said strategic objectives target value and saving the said allowable strategic objective range* (Figure 10 illustrates a display for entering a weighting range, § 0033 teaches that "[t]he effective objective function can be optimized through a range of values of the weighting factor, with the results stored in a table. This computed table essentially provides a relationship between different optimized values of the primary objective, the strategic objective, and the values for the decision variables", § 0079: "a range of target values for the Strategic Objective");

Ouimet teaches "[t]he effective objective function can be optimized through a range of values of the weighting factor, with the results stored in a table" (Ouimet, § 0033) "a hard disk drive for storing results and enterprise data" (Ouimet, § 0073) Pothos teaches "the session details

can be individually stored at step S26.7" (Pothos, ¶ 0136). Ouimet, Boonkhun and Pothos fail to explicitly teach the following limitations. However, Huang in an analogous art of decision support system for the purpose of saving or not saving the modifications (col. 104, lines 32-36) as shown does:

- *b. saving the said modifications to the said interactive databases into the said original databases if the said second expected result or the result of the said comparison between the said first expected results and the said second expected results was an improvement to achieving the said allowable strategic objective range* (col. 104, lines 32-36 which teaches "[e]ach time the scenario is saved, the Date Uploaded field of the scenario is automatically changed to the current date and time. The scenario is saved when the user clicks the OK button. If the user clicks the Cancel button, the scenario is not saved");
- *c. not saving the said modifications to the said interactive databases into the said original databases if the said second expected results or the result of the said comparison between the said first expected results and the said second expected results was a detriment to achieving the said allowable strategic objective range; and* (col. 104, lines 32-36 which teaches "[e]ach time the scenario is saved, the Date Uploaded field of the scenario is automatically changed to the current date and time. The scenario is saved when the user clicks the OK button. If the user clicks the Cancel button, the scenario is not saved");
- *d. saving or not saving, the choice of saving or not saving to be determined by the said entity, the said modifications to the said interactive databases into the said original databases if the said second expected results or the result of the said comparison between the said first expected results and the said second expected results was impact neutral to achieving the said allowable strategic objective range* (col. 104, lines 32-36 which teaches "[e]ach time the scenario is saved, the Date

Uploaded field of the scenario is automatically changed to the current date and time. The scenario is saved when the user clicks the OK button. If the user clicks the Cancel button, the scenario is not saved");

Huang teaches the option to save modifications by allowing a user to click the OK button and to not save by clicking the Cancel button. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ouimet in view of Boonkhun and Pothos to save the modification when the comparison result is an improvement, to not save the modifications when the comparison result is a detriment and to decide to save or not save when the comparison result is a neutral impact to achieve the allowable strategic objective range because the claimed invention is merely a combination of old elements (e.g., what-if analysis, the option to save or not to save), and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable (e.g., allowing a user to save or not save the result based on the allowable strategic objective range which depend on the manager's judgment and business' need).

Claim 14:

The limitations of claim 14 encompass substantially the same scope as claim 3. Accordingly, those similar limitations are rejected in substantially the same manner as claim 3, as described above. The following are the limitations of claim 14 that differ from claim 3.

Ouimet teaches the following limitation:

- *a. receive, load and store* (¶ 0073: "a user enters commands, input functions, etc." "storing results and enterprise data");
- *in the said memory or storage medium of the said apparatus that contains or has access to the said databases and said MIS* (¶ 0073: "storing results and enterprise data" enterprise data represents the information contained in a management information system);

Ouimet teaches "[t]he effective objective function can be optimized through a range of values of the weighting factor, with the results stored in a table" (Ouimet, ¶¶ 0033) "a hard disk drive for storing results and enterprise data" (Ouimet, ¶¶ 0073) Pothos teaches "the session details can be individually stored at step S26.7" (Pothos, ¶¶ 0136). Ouimet, Boonkhun and Pothos fail to explicitly teach the following limitations. However, Huang in an analogous art of decision support system for the purpose of saving or not saving the modifications (col. 104, lines 32-36) as shown does:

- *b. over-write the said original databases in the said memory or storage medium of the said apparatus with the said modifications to the said interactive databases if the said second expected result or the results of the said comparison between the said first expected results and the said second expected results falls within the said allowable strategic objective range* (col. 104, lines 32-36 which teaches "[e]ach time the scenario is saved, the Date Uploaded field of the scenario is automatically changed to the current date and time. The scenario is saved when the user clicks the OK button. If the user clicks the Cancel button, the scenario is not saved");
- *c. prevent the said modifications to the said interactive databases from over-writing the said original databases in the said memory or storage medium of the said apparatus if the said second expected results or the results of the said comparison between the said first expected results and the said second expected results falls outside of the said strategic objective measure allowable range; and* (col. 104, lines 32-36 which teaches "[e]ach time the scenario is saved, the Date Uploaded field of the scenario is automatically changed to the current date and time. The scenario is saved when the user clicks the OK button. If the user clicks the Cancel button, the scenario is not saved");
- *d. over-write or not over-write the said original databases in the said memory or storage medium of the said apparatus, the choice of over-writing or not over-writing*

to be determined by the said entity, with the said modifications to the said interactive databases if the said second expected results or the results of the said comparison between the said first expected results and the said second expected results was impact neutral to the said strategic objective allowable range (col. 104, lines 32-36 which teaches "[e]ach time the scenario is saved, the Date Uploaded field of the scenario is automatically changed to the current date and time. The scenario is saved when the user clicks the OK button. If the user clicks the Cancel button, the scenario is not saved");

Huang teaches the option to save (e.g., over-write) modifications by allowing a user to click the OK button and to not save (e.g., to not over-write) by clicking the Cancel button. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ouimet in view of Boonkhun and Pothos to over-write the modification when the comparison result falls within the allowable strategic objective range, to not over-write the modifications when the comparison result falls outside the strategic objective measure allowable range and to decide to over-writing or not over-writing when the comparison result is a neutral impact to the strategic objective allowable range because the claimed invention is merely a combination of old elements (e.g., what-if analysis, the option to over-write or not to not over-write), and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable (e.g., to over-write or to not over-write the result based on the strategic objective allowable range which depend on the manager's judgment and business' need).

Claim 25:

Ouimet teaches the following limitation:

- *a. a range of acceptable strategic objective measures; and* (¶ 0079: "a range of target values for the Strategic Objective");

- *b. a feature (¶ 0076: "the scenario analysis") for modifying the said databases of the said existing planned activities with the said planned changes to the said existing planned activities in the said memory if the said differences between the said first expected results and the said second expected results are within the said range of acceptable strategic measures or if the said second expected result is are within the said range of the acceptable strategic measures (intended use));*

Claim 36:

The limitations of claim 36 encompass substantially the same scope as claims 3 and 14. Accordingly, those similar limitations are rejected in substantially the same manner as claims 3 and 14, as described above.

Conclusion

36. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- Benbassat et al., (US 2003/0033184 A1) disclose a method and system for assigning human resources to provide services.
 - Ouimet et al., (US 6308162 B1) disclose a method for controlled optimization of enterprise planning models.
 - Stok (US 2003/0033182 A1) disclose a knowledge-based system and a method of business modeling and of business process redesign.
 - Elkins et al., (US 2004/0260703 A1) disclose a quantitative property loss risk model and decision analysis framework.
 - Ernst (US 5,890,133) disclose a method and apparatus for dynamic optimization of business processes managed by a computer system.
 - Ferreri et al., (US 6,681,141 B2) disclose a material requirements planning and simulation analysis.

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Nadja Chong** whose telephone number is **571.270.3939**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **BETH BOSWELL** can be reached at **571.272.6737**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

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